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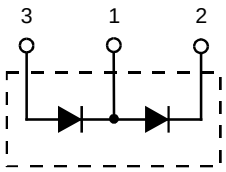
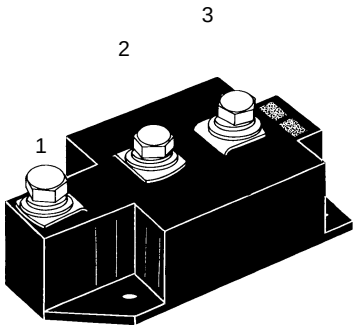
MDD310-08V thru MDD310-22V

Diode/Diode Module

V_{RSM} V	V_{RRM} V	Type
900	800	MDD310-08V
1300	1200	MDD310-12V
1500	1400	MDD310-14V
1700	1600	MDD310-16V
1900	1800	MDD310-18V
2100	2000	MDD310-20V
2300	2200	MDD310-22V





Symbol	Test Conditions			Maximum Ratings	
I_{FRM}	$T_{VJ}=T_{VJM}$			480	A
I_{FAVM}	$T_C=100℃$	180 sine		310	A
I_{FSM}	$T_{VJ}=45℃$	t=10 ms	(50Hz),sine	11500	A
	$V_R=0$	t=8.3 ms	(60Hz),sine	12200	A
	$T_{VJ}=T_{VJM}$	t=10 ms	(50Hz),sine	9600	A
	$V_R=0$	t=8.3 ms	(60Hz),sine	10200	A
$\int i^2dt$	$T_{VJ}=45℃$	t=10 ms	(50Hz),sine	662000	A^2S
	$V_R=0$	t=8.3 ms	(60Hz),sine	620000	A^2S
	$T_{VJ}=T_{VJM}$	t=10 ms	(50Hz),sine	460000	A^2S
	VR=0	t=8.3 ms	(60Hz),sine	430000	A^2S
T_{VJ}				-40 ••• +150	℃
T_{VJM}				150	℃
Tstg				-40 ••• +150	℃
V_{ISOL}	50/60Hz,RMS t=1min			3000	V~
	$I_{ISOL}\leqslant 1mA$ t=1s			3600	V~
Md	Mounting Torque		(M5)	2.5-5	Nm
	Terminal connection torque		(M8)	12-15	Nm
Weight	Typ.			320	g

Features

- ▪Package with screw terminals
- ▪Isolation Voltage 3600V-
- ▪Planar glasspassivated chips
- ▪Low forward voltage drop

Applications

- ·Heat and temperature control for industrial fumaces and chemical processes
- ·Lighting control
- ·Motor control
- ·Power converter

Advantages

- ·Easy to mount with two screws
- ·Space and weight savings
- ·Improved temperature and power cycling
- ·High power density

Symbol	Test Conditions			Characteristic Value	
I_R	$V_R=V_{RRM}$	$T_{VJ}=T_{VJM}$	≤	40	mA
V_F	$I_F=600A$	$T_{VJ}=25℃$	≤	1.2	V
V_{TO}	For power-loss calculations only			0.75	V
r_T	$T_{VJ}=T_{VJM}$			0.63	mΩ
Q_S	$T_{VJ}=125℃, I_F=400A, -di/dt=50A/\mu s$			760	μC
I_{RM}				275	A
R_{thJC}	per Diode;DC current			0.129	K/W
	per module			0.065	K/W
R_{thJK}	per Diode;DC current			0.169	K/W
	per module			0.0845	K/W
d_S	Creeping distance on surface			12.7	mm
d_A	Creeping distance in air			9.6	mm
a	Max.allowable acceleration			50	m/s^2

Dimensions in mm (1 mm = 0.0394")